

CLAIMS

What we claim is:

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A method of recycling carpet tiles in a plurality of division areas, in each of which a plurality of carpet tiles are laid, the method comprising the steps of:

- removing carpet tiles in a first division area, which are to be first reproduced;
- laying auxiliary carpet tiles on the first division area from which the carpet tiles have been removed;
- reproducing the removed carpet tiles;
- removing carpet tiles in a second division area, which are to be subsequently reproduced; and
- successively laying the first removed and reproduced carpet tiles on the second division area from which the carpet tiles were subsequently removed.

2. The method of claim 1, wherein said reproducing step includes:

- a washing step of jetting a fluid onto the removed carpet tiles, thereby to perform cleaning for cleaning dirt and stain on the carpet tiles and to perform retexturing, thus forming cleaned and treated carpet tiles; and

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a recoloring step of recoloring the cleaned and treated carpet tiles with such a design or a color, or both, as to prevent or obscure non-uniformity in color, in accordance with surface conditions of the recolored carpet tiles.

3. A method of reproducing/recoloring carpet tiles, characterized by comprising:

a recovery step of recovering carpet tiles in use;

a first choosing step of choosing the recovered carpet tiles according to the condition of use;

a washing/reproducing step of performing cleaning for cleaning stain on the chosen carpet tiles, and performing retexturing, thus forming reproduced carpet tiles;

a selection step of selecting such a design or color, or both, as to prevent or obscure non-uniformity of stain and color, according to the conditions of surfaces of the chosen reproduced carpet tiles; and,

a recoloring step of recoloring the reproduced carpet tiles using a coloring machine, with the selected design or color or both.

4. The method according to claim 2 or 3, further comprising a step of decoloring the carpet tiles between the washing step and the recoloring step.

5. The method according to claim 2, 3, or 4, further comprising, between the

washing step and the recoloring step, a step of coating or treating the reproduced carpet tiles with at least one of a chemical agent or a coloring agent diffusion with prevention effect, which enhances clearness of surfaces of the reproduced carpet tiles.

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6. The method according to any one of claims 2 to 5, further comprising a surface treatment step of treating surfaces of the reproduced carpet tiles with at least one of a stainproof agent for preventing the reproduced carpet tiles from being stained, an antistatic agent for suppressing static electricity and a germicidal-effect agent having a germicidal effect, the surface treatment step being carried out in the recoloring step or one of steps following the recoloring step.

7. The method according to any one of claims 2 to 6, further comprising a bending step of bending curved reproduced carpet tiles to the original shape, in the washing step or any of the steps following the washing step.

8. The method according to any one of claims 2 to 7, further comprising a cutting or trimming step of cutting out or trimming edge portions of the reproduced tiles, where piles have fallen, which are left after completion of the above steps.

9. A multi-year or multi-cycle renewable carpet system, comprising the steps of:
installing new carpet tile at a location,

removing at least a portion of the carpet tile from the location
after a period of use,
renewing the removed carpet tile,
reinstalling the renewed carpet tile at the location,
removing at least a portion of the reinstalled renewed carpet tile
from the location after another period of use,
renewing the removed reinstalled previously renewed carpet tile,
and reinstalling the twice renewed carpet tile.

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10. The system as recited in claim 9, further comprising the steps of:

removing at least a portion of the reinstalled twice renewed
carpet tile after another period of use,
renewing the removed previously twice renewed carpet tile, and
reinstalling the thrice-renewed carpet tile.

11. The system as recited in claim 9, wherein at least about 75% of the carpet tile
is renewed and reinstalled at least once.

12. The system as recited in claim 9, wherein the carpet tiles are at least one of
40"x40", 36"x36", 20"x20", 18"x18", 1m x 1m, and 50cm x 50cm.

13. The system as recited in claim 9, wherein said renewing step includes a

washing/reproducing step and a recoloring step.

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14. A carpet renewal and charitable donation system, comprising the steps of:
having at least a first company or organization agree to donate
their used carpet tiles to a charity,
having a second company or service remove the used carpet
tiles, renewing the removed tiles and installing the renewed
carpet tiles at the charity or at a location selected by the charity.

15. The system as recited in claim 14, wherein said renewing step includes the
steps of washing and recoloring.

16. A reproduced tile produced by the method of claim 1.

17. A reproduced/recolored carpet tile produced by the method of claim 3.

18. A method of accurately cutting a large carpet tile into four smaller carpet tiles,
comprising the steps of:
cutting at least one carpet tile along its midline to form two
carpet tile halves using an accurate cutter apparatus having a cut
accuracy of at least about 1mm, and
then cutting each of the carpet tile halves in half to form four

carpet tile quarters using the accurate cutter apparatus.

19. The method as recited in claim 18, wherein said accurate cutter apparatus is a mint cutter machine having a cut accuracy of at least 0.50 mm.

20. The method as recited in claim 19, wherein the cut accuracy is at least 0.005mm.

21. A carpet tile quarter produced by the method of claim 18.

22. In a method of installing carpet tile, the improvement comprising:
cutting at least one large carpet tile into smaller carpet tiles
with exacting precision using a mint cutter machine.

23. The method as recited in claim 22, wherein the mint cutter machine can cut a plurality of stacked carpet tiles.

24. The method as recited in claim 22, wherein the large tile is cut in half.

25. The method as recited in claim 22, wherein the large carpet tile is cut into quarters.

26. The method as recited in claim 22, wherein the large carpet tile is patterned, printed, dyed, or the like prior to being cut.

27. The method as recited in claim 22, wherein the large carpet tile is cut and then printed, patterned, dyed, or the like.

28. An extended life carpet tile constructed in a manner providing for at least one renewal cycle of the carpet tile following use thereof, and renewed by cleaning, drying, and recoloring or patterning.

29. A renewed carpet tile having similar appearance to new carpet tile and having a modern pattern, design, and/or color thereon.

30. A method of renewing used extended life carpet capable of being renewed at least once, comprising the steps of:
cleaning the used extended life carpet, treating the cleaned used extended life carpet, and recoloring the cleaned and treated extended life carpet in a manner providing for at least one of a new or modern color, design, or pattern, which gives it a new carpet look.

31. The method as recited in claim 30, further comprising at least one of the steps of:

adding cushion, adding backing, adding anti-microbial agents, adding anti-fungal agents, and combinations thereof.

32. Renewed extended life carpet produced by the method of claim 30.

W. M. G. J.